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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,086	11/19/2003	Reade Clemens	EH-10546A(01-465A)	9418

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EXAMINER

NGUYEN, PHONG H

ART UNIT PAPER NUMBER

3724

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/718,086

Applicant(s)

CLEMENS, READE

Examiner

Phong H. Nguyen

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-14 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Double Patenting*

1. The Terminal Disclaimer filed on 06/30/2005 is acknowledged. Double patenting is withdrawn.

### *Specification*

2. The Specification is objected to under 37 CFR 1.71 for not clearly explaining the diamond mounting direction in paragraph [0019].

The Specification does not describe how the locations of the coordinates are defined so that one or ordinary skilled in the art can make and use the same. That is, whether these coordinates are defined relatively to the shank axis or the diamond tip axis.

It is unclear whether Applicant describes atomic arrangement of atoms in the diamond tip 16 or the angle of the diamond tip 16 with respect the shank axis 24.

It is unclear how Applicant defined a diamond having a 90 degree included angle conical point in claim 9 and a diamond having a 120 degree included angle conical point in claim 10. See paragraph [0020].

It is unclear what a single crystal diamond is. See paragraph [0017] and [0021].

### *Drawings*

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following

limitations must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

- A diamond having a 90 degree included angle conical point in claim 9.
- A diamond having a 120 degree included angle conical point in claim 10.
- A single crystal diamond.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 1, 13 and 14, it is unclear whether Applicant claims atomic arrangement of atoms in the diamond tip 16 or the angle of the diamond tip 16 with respect to the shank axis 24 or the angle of the outer surface of the diamond tip with respect to the diamond tip's axis or the diamond tip's base. There is insufficient information as to the specific intrinsic crystallographic direction and the angle to what it is. That is, it is not clear what the <17, 12, 24> direction represents.

It is not clear why mounting of any diamond tip to an indenting tool would not inherently meet the limitation of the direction of the diamond tip, since the Applicant's diamond tip is very similar to other diamond tips which both align with the axis of their shank and both have conical shape.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “a <17, 12, 24> direction” is confused with shank 12 and shank axis 24.

*Claim Rejections - 35 USC § 102*

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-6 and 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson et al. (6,051,079), hereinafter Anderson.

Regarding claims 1 and 13, Anderson teaches a tool capable of being used as an indenting tool comprising a shank 10 and a diamond tip 12. See Fig. 3, col. 3, lines 29-54 and the Abstract.

To the extent explained by Applicant's specification, drawings, and claims, Anderson anticipates the limitation of the direction of the diamond tip. Since Anderson's diamond tip is similar to Applicant's diamond tip which has a conical shape and aligns with the shank axis and Applicant's diamond tip is considered “within 8 degrees of a <17, 12, 24> direction”; therefore, a conical tip being on the axis of a shank is considered “within 8 degrees of a <17, 12, 24>” direction.

Regarding claim 2, shank 10 is made of steel.

Regarding claims 3 and 4, see Fig. 3.

Regarding claims 5 and 6, since Anderson claims the diamond tip in general, Anderson anticipates narrower claims 5 and 6.

Regarding claim 8, see Fig. 1.

Regarding claims 9 and 10, since Applicant does not clearly define the shape of the diamond tip and the diamond tip in Figs. 1 and 2 of the Applicant's disclosure has the same shape of the diamond tip of Anderson; therefore, Anderson anticipates claims 9 and 10.

Regarding claim 11, see col. 3, lines 29-54 and the Abstract.

Regarding claim 12, see Fig. 1.

Regarding claim 14, Anderson teaches method capable of making an indenting tool comprising the steps of:

- providing a shank 10 having an end;
- providing a diamond 12;
- positioning the diamond in a wear resistant position;
- securing the diamond to the end of the shank; and
- the positioning step comprising positioning the diamond a wear resistant orientation of within 8 degrees of a <17, 12, 24> direction.

See Fig. 3.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson.

Anderson teaches the invention substantially as claimed but silence on whether the diamond is synthetic or natural. However, choosing a synthetic diamond or a natural diamond to manufacture a diamond tip is not patentably distinct over prior art since it involves cost analysis, the availability of natural diamond and synthetic diamond and market demand.

### *Conclusion*

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phong H. Nguyen whose telephone number is 571-272-4510. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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August 23, 2005



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